

Claims:

1. A food additive composition comprising:

- i) bean powder;
- ii) water absorbent vegetable fibre;
- 5 iii) one or more inorganic calcium compounds; and
- iv) modified cellulose,

wherein i) is present in a proportion of between 50 to 90% by weight based on the total weight of i), ii), iii) and iv).

10 2. A food additive composition as claimed in claim 1 in which the proportion of bean powder present is from 80 to 90% based on the total weight of i), ii), iii) and iv).

3. A food additive composition as claimed in claim 1 or claim 2 wherein the bean powder is lima bean powder.

15 4. A food additive composition according to claim 3 in which the bean powder component is derived from the lima pulse as a fine powder with a sieve analysis of 90% or over through a 140 micrometer sieve.

20 5. A food additive as claimed in any of claims 1 to 4 in which the water absorbent vegetable fibre is present at from 3 to 12% by weight based on the total weight of i), ii), iii) and iv).

25 6. A food additive as claimed in any of claims 1 to 5 in which the water absorbent vegetable fibre is potato fibre.

30 7. A food additive composition according to claim 6 in which the potato fibre component is a natural product which is derived from potatoes as a fine powder of fibre with a sieve analysis of 85% or over through a 250 micrometer sieve.

8. A food additive as claimed in any of claims 1 to 7 in which the inorganic calcium compound is present at

from 2 to 10% by weight based on the total weight of i), ii), iii) and iv).

9. A food additive as claimed in any of claims 1 to 8 in which the inorganic calcium compound is calcium carbonate.

10. A food additive composition according to claim 9 in which the calcium carbonate component is crystalline calcium carbonate BM grade.

11. A food additive composition as claimed in any of claims 1 to 10 in which the modified cellulose is present at between 0.5 and 10% by weight based on the total weight of i), ii), iii) and iv).

12. A food additive composition according to claim 11 in which the modified cellulose component is a natural product produced from vegetation or wood pulps as a free-flowing powder.

13. A food additive composition according to claim 12 in which the modified cellulose is LIG 55 Methocel food grade modified cellulose.

14. A food additive composition according to any of claims 1 to 13 comprising 39% starch/dextrins, 3.1% reducing sugars, 26.6% dietary fibre high in solubility, 16.2% of protein (not gluten forming), 1.2 % ash and 9.1% moisture, with a seasonal variation in the composition of 5% of the value of each component.

15. A food additive composition comprising 80-90% bean powder, 5-7% fine potato fibre, 3-5% calcium carbonate and 1-4% modified cellulose as active ingredients.

16. Use of a food additive composition according to any preceding claim in the treatment of foods which are processed, baked or fried and then reheated or cooked.

17. Use according to claim 16 in which the foods are frozen or chilled prior to reheating or cooking.

18. A processed food product comprising the food additive according to any one of claims 1 to 15.

19. A processed food according to claim 18 selected from the group consisting of all savoury and sweet processed foods, dough based foods and batters (both fermented and non-fermented), inclusive of potato doughs, fillings, toppings, coatings or dustings of dough based foods, batters and potato doughs, including dry crumb coatings and the dusting of such doughs at specific processing steps.

20. A processed food according to claim 18 selected from the group consisting of puff pastry products, pasta, pies, rolls and slices with both sweet and savoury fillings or toppings, bread, including crusty bread products, baguettes, loaves and rolls (including fillings), garlic bread, soft bread products, fruited buns, hot dog rolls, burger buns, baps and naan bread, pitta bread, tortilla wraps and pizzas, both pizza bases or topped pizzas, batters for Yorkshire pudding, choux buns, various nuggets, fritters, crumpets, cakes, sponge cakes, puddings, potato products, roast potatoes, French fries, potato wedges waffles, potato croquettes and shaped potato products, baked or fried filo pastries, spring rolls, samosas, parcels, morning goods including croissants, Danish pastries, doughnuts, including filled and topped doughnuts, shortcrust pastries, including pies and crumbles (with both sweet and savoury fillings), and bread crumb for coating, crumb coated fish or chicken pieces or products, including shaped fish or chicken products such as fingers or nuggets.

21. A base dough formulation comprising the food additive composition according to any one of claims 1 to 15 at 0.5% to 5.0%.

22. A base batter formulation comprising the food additive composition according to any one of claims 1 to 15 at 0.75% to 8.5%.

23. A base potato dough formulation comprising the food additive composition according to any one of claims 1 to 15 at 0.5% to 3.0%.

24. A filling or topping for a dough product comprising the food additive composition according to any one of claims 1 to 15 at 1.0% to 5.0%.

10 25. A processed food comprising the food additive composition according to any one of claims 1 to 15 as a dusting or coating at 0.1% to 1.5%.

15 26. A finished or part finished food product comprising the food additive composition according to any one of claims 1 to 14 in a microwave heatable packaging material.

27. A product according to claim 26 in which the packaging utilises susceptor technology.

20 28. A premix for making a microwave heatable processed food comprising the food additive composition according to any one of claims 1 to 15 in combination with a base ingredient of a processed food.

25 29. A premix according to claim 28 in which the base ingredient is flour, and the food additive is present at 1% to 9%.

30 30. A method of preparing processed foods for heating or cooking in a microwave oven, the method comprising incorporating into a food or ingredient for a food a suitable amount of the food additive composition according to any one of claims 1 to 15.

31. A method according to claim 30 in which a suitable amount of food additive composition is from 0.15 to 10% depending on the food product.

32. A method according to claim 31 in which the food additive composition is added to base dough formulations at 0.5% to 5.0%, to base batter formulations at 0.75% to 8.5%, to base potato dough formulations at 0.5% to 3.0%, to 5 fillings/toppings at 1.0% to 5.0%, or to subsequent dough processing steps at 0.1% to 1.5%.

33. A method according to claim 30 in which the food additive ingredient is dusted on the surface of a food to be processed.

10 34. A method according to any one of claims 30 to 33 in which the processed foods are baked or fried, then cooled frozen and packaged.